

REMARKS

In the Office Action dated March 25, 2005, claims 1-48 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 6,182,136 (Ramanathan) in view of U.S. Patent No. 5,490,252 (Macera).

Applicant respectfully notes that the Office Action is incomplete, as no rejection or indication of allowability was provided with respect to claims 49-52. In view of the lack of any rejections of claims 49-52, allowance of claims 49-52 is respectfully requested.

It is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to independent claim 1 for at least the following reasons: (1) no motivation or suggestion existed to combine the teachings of Ramanathan and Macera; and (2) even if combined, the hypothetical combination of Ramanathan and Macera does not teach or suggest all elements of the claims. *See* M.P.E.P. § 2143 (8th ed., Rev. 2), at 2100-129.

With respect to claim 1, the Office Action conceded that Ramanathan fails to disclose selecting an IP route from the set of routes which meets predetermined criteria. 3/25/2005 Office Action at 3. However, the Office Action relied upon Macera as teaching the missing element.

Applicant respectfully submits that Macera does not teach or suggest selecting an IP route from a set of routes which meets predetermined criteria. Macera describes an inter-networking system for exchanging packets of information between networks, such as among an Ethernet network, an FDDI network, a token ring network, a T1/E1 network, and a DS3 network, as depicted in Fig. 3. Macera, 1:66-2:1. The inter-networking system described in Macera is a broadband enterprise switch (BES), referred to as a high-performance, high-availability switch by Macera. Macera, 3:66-4:4. As depicted in Fig. 3, the BES of Macera includes a system bus 43 that is connected to various interface modules (labeled 78, 80, 82, 84, and 86 in Fig. 3). With the arrangement depicted in Fig. 3, the BES can be used to interconnect the various networks illustrated in Fig. 3. *See, e.g.*, Macera, 5:29-33. A data packet flow for the BES architecture depicted in Fig. 3 is described in column 20 of Macera. In the example described in Macera, LAN packets are received by the Ethernet interface module 78 of Fig. 3. Macera, 20:43-45. The packets are then sent to the system bus 43 to an FPSE 62 where a copy of the packet is stored in a central buffer 56. Macera, 20:47-50. A filter 218 examines the source address of the packet to determine if the source address has been seen

before. Macera, 20:51-55. The filter 218 also examines the destination address of the packet to determine if the packet should be forwarded, flooded, or discarded. Flooding refers to sending the packet to all ports. Macera, 20:62-64. Routing refers to sending the packet to a particular destination port. Macera, 20:65-21:2.

The Office Action cited column 24, lines 58-63, of Macera as teaching the selecting act of claim 1. The column 24 passage refers to address fields used on the system bus 43, including address fields SRC(7:0) and DST(7:0) to select the data source port and destination port of the bus during packet and circuit data transfer operations. However, the address fields referred to in column 24 of Macera merely refer to the transfer of packets by the BES as described in column 20 of Macera. The routing of the packet is based on the source and destination addresses carried in the packet. In other words, the packet is routed over the system bus 43 of the BES described in Macera based on a pair of source and destination addresses contained in the packet. Macera does not disclose selecting an IP route from a set of IP routes (that link server IP addresses and a client IP address) which meets predetermined criteria. All that is occurring in Macera is the transfer of a packet over a bus 43 from a source to a destination based on the source address and destination address carried by the packet.

In view of the foregoing, even if Ramanathan and Macera can be combined, the hypothetical combination of Ramanathan and Macera does not teach or suggest all elements of the claims. The *prima facie* case of obviousness is defective for at least this reason.

Moreover, there existed no motivation or suggestion to combine the teachings of Ramanathan and Macera. Ramanathan describes a method and system for modeling services available on a network that includes selecting a core service that is to be modeled, forming a discovery template that is specific to the selected core service, and automatically discovering the elements that cooperate to provide the core service. Ramanathan, Abstract, 3:57-4:4. In the auto-discovery process described by Ramanathan, information available in a domain name system (DNS) of an ISP is used to discover the existence and the relationships among various services. Ramanathan, 6:26-29. The DNS is used to map host names to IP addresses. Ramanathan, 6:31-33. The Office Action cited column 6, lines 42-64 of Ramanathan as teaching several of the elements of claim 1. The cited passage refers to a DNS server receiving a request for a domain name, and selecting an IP address of one of the servers in a round-robin scheme. Ramanathan, 6:62-64. The selected IP address relates to one of several front-end

servers. Ramanathan, 6:53-58. Accessing a DNS server to obtain an IP address of a front-end server based on a domain name, as taught by Ramanathan, for the purpose of performing auto-discovery for detecting service elements and/or services that are used by a specific network, is completely different from the inter-networking system described by Macera. The inter-networking system described by Macera is basically a switch for routing packets between devices on different networks. Macera has absolutely no need for the modeling mechanism described by Ramanathan. Nor does Ramanathan have any need for the switch (in the form of the BES) described by Macera. Based on the foregoing, it is clear that a person of ordinary skill would not have been motivated to combine the teachings of Ramanathan and Macera to achieve the claimed invention.

A *prima facie* case of obviousness has not been established with respect to claim 1 for this additional reason.

Independent claims 15 and 25 are allowable over Ramanathan and Macera for similar reasons.

Dependent claims are allowable for at least the same reasons as corresponding independent claims.

Moreover, with respect to dependent claims 7 (which depends from claim 1) and 20 (which depends from claim 15), the Office Action cited the following two passages of Macera as teaching selecting the IP route from the set of IP routes which has a shortest AS path: column 10, lines 15-30; column 17, lines 20-28. The cited column 10 passage refers to dynamic routing capabilities supported by the BES, where such dynamic routing capabilities include OSPF, which is explained in the cited column 17 passage as referring to Open Shortest Path First. However, this teaching with respect to OSPF does not disclose or suggest selecting the IP route from the set of IP routes linking server IP addresses and a client IP address which has a *shortest AS path*.

With respect to dependent claims 8 and 9 (which depend from claim 1) and dependent claims 21 and 22 (which depend from claim 15), the Office Action stated that Ramanathan-Macera disclose or suggest the additional element recited in each of the claims, without citing any specific passage in Ramanathan or Macera. Such a rejection is defective. In fact, there is nothing in Macera or Ramanathan that teaches or suggests selecting an IP route

from a set of IP routes that have a lowest origin type (claims 8 and 21) or which has a lowest MED (claims 9 and 22).

With respect to dependent claims 13 (which depends from claim 1) and 28 (which depends from claim 25), the Office Action cited the following passages of Ramanathan and Macera: Ramanathan, 4:42-64; Macera, 10:15-30; 17:20-28; 16:40. Claim 13 recites defining an enhanced address resource record that includes a domain name, a list of corresponding servers and routers, router retrieval parameters, a default client/server IP route, and timeouts. Neither Ramanathan nor Macera teaches or suggests an address resource record that contains all of the listed information elements recited in claim 13 or 28. The Office Action appeared to have looked in the references for keywords that match up with the elements of claim 13 or 28 without regard to whether the keywords refer to elements that are part of an address resource record – in fact, there is nothing in Ramanathan or Macera to even remotely suggest an address resource record that includes the information elements listed in claim 13 or 28.

With respect to claim 35 (which depends indirectly from claim 1) or 44 (which depends from claim 15), the Office Action cited the following passages of Ramanathan: 6:42-64; 21:18-45. Claim 35 recites accessing a field in a record, the field to indicate one of plural *techniques for downloading IP routes* from routers to the DNS server; and based on a technique identified by the field, establish one or more sessions with the routers to download IP routes from the routers into an IP routes database in the DNS server. The cited column 6 passage of Ramanathan refers to a DNS server, in response to receiving a request for a domain name, acquiring an IP address of one of the servers in a round-robin scheme. The cited column 21 passage of Ramanathan refers to the DNS server resolving an ISP mail domain. However, there is no suggestion whatsoever in either Ramanathan or Macera of accessing a field that indicates one of plural techniques for downloading IP routes from routers to the DNS server, and establishing one or more sessions with the routers to download IP routes based on the technique identified by the field.

In view of the foregoing, allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 08-2025 (10006946-1).

Respectfully submitted,

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